

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Currently Amended) A heat sink assembly with integrated electronics comprising:

a cover having at least one side open for exposing an interior cavity, said cover being made of a material having the capability of withstanding high temperatures;

at least one hybrid circuit housed in said cavity and having ~~interconnect locations~~ interconnects at said open side of said cover; and

a bottom for attachment to and sealing of said at least one open side of said cover, said bottom being made from a material having heat sink capabilities and having a plurality of interconnect pins molded therein, said pins providing electrical interconnect capabilities between said at least one hybrid circuit and an external device, said pins being coupled to said ~~interconnect locations~~ interconnects of said at least one hybrid circuit by a wire bond.

Claim 2. (Original) The heat sink assembly as claimed in claim 1 wherein said cover further comprises a track molded in an edge of said open side, and wherein said bottom has a bead molded therein for interconnection with said track in said open side of said cover.

Claim 3. (Original) The heat sink assembly as claimed in claim 2 wherein an adhesive is applied to said track thereby sealing said bottom to said cover.

Claim 4. (Previously Presented) The heat sink assembly as claimed in claim 1 wherein said cover is cast aluminum.

Claim 5. (Previously Presented) The heat sink assembly as claimed in claim 1 wherein said pins are solderable at another end for connection to said external device.

Claim 6. (Original) The heat sink assembly as claimed in claim 1 wherein said sealed cover and bottom are filled with a dielectric gel material.

Claim 7. (Previously Presented) The heat sink assembly as claimed in claim 1 wherein said cover has partitions separating said at least one hybrid circuit from another hybrid circuit housed in said cover, said at least one hybrid circuit and said another hybrid circuit having separate substrates.

Claims 8-19. (Canceled)

Claim 20. (Previously Presented) The heat sink assembly as claimed in claim 1, wherein said at least one hybrid circuit is oriented substantially perpendicular to a plane defined by a face of said bottom, said face being attached to said cover.

Claim 21. (New) A heat sink assembly with integrated electronics comprising:
a cover having at least one side open for exposing an interior cavity, said cover being made of a material having the capability of withstanding high temperatures, said cover including a track molded in an edge of said open side;

at least one hybrid circuit housed in said cavity and having interconnects at said open side of said cover; and

a bottom for attachment to and sealing of said at least one open side of said cover, said bottom being made from a material having heat sink capabilities and having a plurality of interconnect pins molded therein, said pins providing electrical interconnect capabilities between said at least one hybrid circuit and an external device, said pins being coupled to said interconnects of said at least one hybrid circuit by a wire bond, said bottom having a bead molded therein for interconnection with said track in said open side of said cover.

Claim 22. (New) The heat sink assembly as claimed in claim 21 wherein an adhesive is applied to said track thereby sealing said bottom to said cover.

Claim 23. (New) The heat sink assembly as claimed in claim 21 wherein said cover is cast aluminum.

Claim 24. (New) The heat sink assembly as claimed in claim 21 wherein said pins are solderable at another end for connection to said external device.

Claim 25. (New) The heat sink assembly as claimed in claim 21 wherein said sealed cover and bottom are filled with a dielectric gel material.

Claim 26. (New) The heat sink assembly as claimed in claim 21 wherein said cover has partitions separating said at least one hybrid circuit from another hybrid circuit housed in said cover, said at least one hybrid circuit and said another hybrid circuit having separate substrates.

Claim 27. (New) The heat sink assembly as claimed in claim 21, wherein said at least one hybrid circuit is oriented substantially perpendicular to a plane defined by a face of said bottom, said face being attached to said cover.

Claim 28. (New) A heat sink assembly with integrated electronics comprising:
a cover having at least one side open for exposing an interior cavity, said cover being made of a material having the capability of withstanding high temperatures;
a first and second hybrid circuit housed in said cavity and having interconnects at said open side of said cover, said cover having partitions separating said first hybrid circuit from said second hybrid circuit housed in said cover, said first hybrid circuit and said second hybrid circuit having separate substrates; and
a bottom for attachment to and sealing of said at least one open side of said cover, said bottom being made from a material having heat sink capabilities and having a plurality of interconnect pins molded therein, said pins providing electrical interconnect capabilities between said first hybrid circuit and an external device, said pins being coupled to said interconnects of said first hybrid circuit by a wire bond.

Claim 29. (New) The heat sink assembly as claimed in claim 28 wherein said cover further comprises a track molded in an edge of said open side, and wherein said bottom has a bead molded therein for interconnection with said track in said open side of said cover.

Claim 30. (New) The heat sink assembly as claimed in claim 28 wherein an adhesive is applied to said track thereby sealing said bottom to said cover.

Claim 31. (New) The heat sink assembly as claimed in claim 28 wherein said cover is cast aluminum.

Claim 32. (New) The heat sink assembly as claimed in claim 28 wherein said pins are solderable at another end for connection to said external device.

Claim 33. (New) The heat sink assembly as claimed in claim 28 wherein said sealed cover and bottom are filled with a dielectric gel material.

Claim 34. (New) The heat sink assembly as claimed in claim 28, wherein said first hybrid circuit is oriented substantially perpendicular to a plane defined by a face of said bottom, said face being attached to said cover.